



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,787	01/16/2002	Bertrand Dorfman	ZETEK P-3	5605

26418 7590 05/18/2005

REED SMITH, LLP  
ATTN: PATENT RECORDS DEPARTMENT  
599 LEXINGTON AVENUE, 29TH FLOOR  
NEW YORK, NY 10022-7650

EXAMINER
----------

PEREZ, ANGELICA

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/047,787	<b>Applicant(s)</b> DORFMAN, BERTRAND	
	<b>Examiner</b> Perez M. Angelica	<b>Art Unit</b> 2684	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. Claim 19 recites the limitation "the antenna improvement comprising" in line 2; and the limitation "base" in lines 6 and 10. Claim 26, recites the limitation "the method..." in line 2 and the limitation "the plane". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Arai (Arai et al.; US006061579A).

Regarding claim 19, Arai teaches in a personal portable phone having an ear piece (figure 4(a), item 10; where the earpiece is located in the upper surface of the telephone that faces the user) the antenna improvement comprising: an antenna base which is substantially perpendicular to the plane operative position (column 4, lines 3-15 and figure 5 (b); where the antenna plate comprising the antenna is positioned perpendicularly in relation to the earpiece), a first directional antenna mounted on the base providing a first conical electromagnetic energy radiation pattern (figures 5(b) and 6(a), column 5, lines 20-36) and , the first conical pattern having a first included angle of less than 60 degrees (figures 5(b) and 6(a), column 5, lines 20-36; where satellite

Art Unit: 2684

conical beams are required to be between 36 to 60 degrees) and an axis that substantially perpendicular to the plane of the base and substantially parallel to the plane of the ear piece (column 5, lines 10-36; where the antenna plane is positioned in parallel with the ground surface in order to attain the desired angle between 36 and 60 degrees; therefore, the axis becomes relatively parallel to the plane of the earpiece), the conical pattern encompassing substantially the sole radiation from the antenna (column 5, lines 20-25; where conical antennas direct the radiation pattern within the configured pattern; e.g., between 36 and 60 degrees), the first conical pattern substantially missing the head of the user when a user places the ear piece against the user's ear (figure 5(b); where observing the head of the user in relation to the antenna, the perpendicularly/non-perpendicularly projected radiation pattern substantially miss the head of the user).

Regarding claim 20, Arai teaches all the limitations of claim 19. Arai further teaches where the first directional antenna is a patch type antenna (figure 5(b) item 20, column 3, lines 16-20).

Regarding claim 21, Arai teaches all the limitations of claim 20. Arai further teaches where the patch type antenna has an inoperative position flush with the face of the base in an inoperative state (column 2, lines 51-61).

Regarding claim 22, Arai teaches all the limitations of claim 19. Arai further teaches where the first included angle is approximately 30 degrees (column 5, lines 26-36; e.g., 36 degrees).

Regarding claim 26, Arai teaches of a personal portable phone having an ear piece (figure 4(a), item 10; where the earpiece is located in the upper surface of the telephone that faces the user), the method of minimizing the impact of transmitted electromagnetic energy on the head of the user (column 2, lines 6-13) comprising the steps of: In a personal portable providing a first patch antenna on a plane perpendicular to the plane of the ear piece (column 4, lines 3-15 and figure 5 (b); where the antenna plate comprising the antenna is positioned perpendicularly in relation to the earpiece), transmitting electromagnetic energy from the first antenna in a first substantially conical pattern having a first included angle of less than 60 degrees (figures 5(b) and 6(a), column 5, lines 20-36; where satellite conical beams are required to be between 36 to 60 degrees) and having a first axis, the first axis being substantially perpendicular on the plane of the patch antenna (column 5, lines 10-36; where the antenna plane is positioned in parallel with the ground surface in order to attain the desired angle between 36 and 60 degrees; therefore, the axis becomes relatively parallel to the plane of the earpiece), and positioning the conical pattern so that the first axis is substantially parallel when the user places the ear piece against the user's ear and causing said conical pattern to substantially miss the head of the plane of the ear piece the user (column 5, lines 10-36; where the antenna plane is positioned in parallel with the ground surface in order to attain the desired angle between 36 and 60 degrees; therefore, the axis becomes relatively parallel to the plane of the earpiece).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai in view of Iwai (Iwai et al.; US Publication No.: 6,731,920 B1).

Regarding claim 23, Arai teaches all the limitations of claim 19.

Arai does not teach of a second directional antenna adjacent to the first antenna on the antenna base, the second antenna providing a predetermined conical electromagnetic energy radiation pattern propagating in a direction substantially 180° from the direction in which the conical electromagnetic radiation pattern propagates from the first antenna.

In related art concerning a portable telephone apparatus control method, Iwai teaches of a second directional antenna adjacent to the first antenna on the antenna base, the second antenna providing a predetermined conical electromagnetic energy radiation pattern propagating in a direction substantially 180° from the direction in which the conical electromagnetic radiation pattern propagates from the first antenna (figure 16, items 102 and 103; columns 16 and 17, lines 54-67 and 1-26, respectively; column 18, lines 18-54).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Arai's deployable device with Iwai's adjacent

Art Unit: 2684

directional antennas in order to provide gain increase that provides stronger radiating directivity away from the user with enhanced quality of communication, as taught by Iwai.

Regarding claim 24, Arai in view of Iwai teaches all the limitations of claim 23. Iwai further teaches where the first and second directional antennas are patch type antennas (figure 16, items 102 and 103).

Regarding claims 25, 27 and 29, Arai in view of Iwai teaches all the limitations of claims 23 and 26. Arai further teaches where the first and second included angles are each approximately 30 degrees (column 5, lines 26-36; e.g., 36 degrees angle).

Regarding claim 28, Arai teaches of providing a patch antenna on the plane perpendicular to the plane of the ear piece (column 4, lines 3-15 and figure 5 (b), transmitting electromagnetic energy from the antenna in a substantially conical pattern (figures 5(b) and 6(a), column 5, lines 20-36) having an included angle of less than 60 degrees (figures 5(b) and 6(a), column 5, lines 20-36; where satellite conical beams are required to be between 36 to 60 degrees) and having an axis, the axis being substantially perpendicular to the plane of the patch antenna, and positioning the conical pattern so that the first axis is substantially parallel to the plane of the ear piece when the user places the ear piece against the user's ear (column 5, lines 10-36; where the antenna plane is positioned in parallel with the ground surface in order to attain the desired angle between 36 and 60 degrees; therefore, the axis becomes relatively parallel to the plane of the earpiece) and causing the conical pattern to substantially miss the head the user (figure 5(b); where observing the head of the user in relation to

Art Unit: 2684

the antenna, the perpendicularly/non-perpendicularly projected radiation pattern substantially miss the head of the user).

Arai does not teach of a second patch antenna.

In related art concerning a portable telephone apparatus control method, Iwai teaches of a second patch antenna (figure 16, items 102 and 103).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Arai's deployable device with Iwai's second patch antenna in order to provide gain increase that provides stronger radiating directivity away from the user with enhanced quality of communication, as taught by Iwai.

6. Applicant's arguments with respect to claims 19-29 have been considered but are moot in view of the new ground(s) of rejection.



### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 7:00 a.m. - 3:30 p.m., Monday - Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone numbers for

Art Unit: 2684

the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

  
Angelica Perez  
(Examiner)

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER

Art Unit 2684

May 12, 2005